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(54) IMPROVED DNA PROBE

(57)Abstract:

PURPOSE: To easily obtain a highly sensitive DNA probe useful as a molecular probe on genetic operations by labeling the 5'-terminal of a specific oligonucleotide with plural reporter groups.

CONSTITUTION: This improved DNA probe is obtained by labeling a desired RNA (DNA) in a biological specimen with (a) a hybridizable complimentary oligonucleotide, (b) the first phosphate molecule of formula I [(n) is 2-10; X is a polyethylene glycol chain having 1 to 30 ethylene glycol units, (c) a polyhydroxyl branched molecule having 3-5 hydroxyl groups and capable of being covalently bound to the component (b), and (d) the second phosphate molecule capable of being covalently bound to the other hydroxyl groups of the component (c), and subsequently hybridizing the obtained labeled DNA molecule with a desired RNA (DNA), thus obtaining the DNA probe comprising the detection single-stranded DNA molecule.

